

## ABSTRACT

**Comparison staining methods use Papanicolaou, Safranin, and Diffquik of evaluating the morphology of human spermatozoa in Andrology Clinic, dr Soetomo hospital, Surabaya**

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**OBJECTIVE:** The aim of this study was to analyzed the differences between the methods of Papanicolaou, Safranin-Crystal violet and Diff-Quik stain and to find the alternative of gold standard stain.

**METHOD:** The Design of research was obeservational analytic laboratory study, performed on patient who came to dr Soetomo hospital, Surabaya in the October 2015 – Februari 2016. Reasearch examined the morfologi spermatozoa and examined with three method: Papanicolaou, Safranin-Crystal violet, and Diff-Quik and then compare it.

**RESULTS :** The results, a total of human sperm who sperm morfologi examined with Papanicolaou, safranin-Crystal violet and Diff-Quik for five month at dr Soetomo hospital from October 2015 to February 2016 as many 90 taken his sperm and checking sperm morfologi with Papanicolaou, Safranin-Crystal violet, and Diff-Quik.

The results of statistical analysis found that there is significant between three method that we examine. In the category length and width there are significant different  $p < \alpha$  between Diff-Quik, Safranin-Crystal Violet and Diff-Quik-Papanicolaou, whereas no significant different between Safranin-Crystal violet -Papanicolaou  $p > \alpha$ . Similar result were shown by category vacuoles, acrossom, mid piece, and ERC. In the third method showed a significant different.

**CONCLUSION :** Safranin-Crystal Violet stained as good as gold standard for analyzing morphology human spermatozoa such as head size, head shape, vacuoles, acrosomes, mid piece , principal piece and Excess Residual Cytoplasm. Based on that, Safranin – Crystal Violet could be one of the alternatives in staining methods.

**KEY WORD :** Sperm morphology, Papanicolaou, Safranin-Crystal violet, Diff-Quik.